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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,939	02/15/2001	Michael Zahm	Westphal.6081	2343

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EXAMINER	
NATNAEL, PAULOS M	

ART UNIT	PAPER NUMBER
2614	9

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,939	ZAHM ET AL.	
	Examiner	Art Unit	
	Paulos M. Natnael	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *9-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the claimed "said at least one of said audio and video demodulation devices" lacks antecedent basis.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Streck** et al., U.S. Pat. No. **5,045,948** in view of Taniguchi et al., U.S. Pat. No. **5,045,948.**

Considering claim **1**, **Streck** et al. discloses the following claimed subject matter, note;

a) at least two channel selection devices for converting the video/audio high-frequency signals into intermediate frequency signals, is met by Tuners 134/132 and selectable tuner 130, fig. 15;

b) at least two video demodulation devices to convert said intermediate frequency signals into video signals, is met by the AM Demodulator 82 and the FM Demodulator 90, Fig.15, which demodulate both the audio and video signals.

c) at least two audio demodulation devices to convert said intermediate frequency signals into audio signals, is also met by the AM Demodulator 82 and the FM Demodulator 90, Fig.15, which again demodulate both the audio and video signals.

Except for;

d) an intermediate frequency switching device that selectively connects said at least one of said audio and video demodulation devices to said channel selection devices in response to a control signal;

Regarding d), Streck et al. discloses a selectable tuner attached to switch 131 which selects between the A channel, remote control transmitter, and a function control circuit which controls the over all function of the system. (see col. 9, 50-55) Although, Streck does not specifically disclose a switch means between the tuner and modulators, it is well known in the art to utilize a selector or switch to selectively connect the demodulators to the receiver circuitry. In that regard, Taniguchi et al discloses a mobile electric accessory apparatus that includes a separate wireless receiver unit such as

television receiver. (see Abstract) Taniguchi et al discloses a plurality of tuner/detectors, a plurality of changeover circuit or switches for connecting to audio and video demodulators 38, 40 and 64. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Streck et al. by providing the changeover circuits or switches of Taniguchi et al., in order for the user or viewer to select the desired input signal from the receivers, by instructing the control circuit with a remote controller.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Streck** et al., U.S. Pat. No. **5,045,948** in view of Lindenmeier et al., U.S. Pat. No. 5,313,660.

Considering claim **2**, the receiving device of claim 1, comprising:

a) at least two receiving antennas that receive and provide said video/audio high-frequency signals, is met by antennae 28 and 136, fig.15;

Except for;

b) a high-frequency switching device to switch said receiving antennas to said television channel selection devices.

Regarding b, switches or selectors to selector input signals from the antennae to tuners again are well known in the art. Lindenmeier et al discloses antenna diversity system and teaches an antenna distributor 1 which distributes the received signal to switches 2a and 2b, which in turn select one of the signals and output the selected signal to tuner 4a and 4b. (see Fig.1 of Lindenmeier) Therefore, it would have

been obvious to the skilled in the art at the time the invention was made to modify the system of Streck et al. by providing a selector or switch of Lindemeier, in order for the signals received by the antennae to be properly distributed to the tuner and other devices.

6. Claims **3-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Streck** et al., U.S. Pat. No. **5,045,948** in view of Lindemeier et al., U.S. Pat. No. 5,313,660 and further in view of Cvetkovic et al., U.S. Patent No. 6,141,536.

Considering claim 3, the receiving device of claim 2, comprising a video correlation device that receives said video signals and provides a correlated video output;

Regarding claim 3, the combination of **Streck** et al. and Lindemeier as modified above does not disclose a correlation device, which however is well known in the art. In that regard, Cvetkovic et al., disclose a diversity radio system wherein "based on a comparison of the two signals, correlator 27 provides an indicating signal to microprocessor 16 to identify whether the audio content is the same. " (see col. 3, lines 30-33)

Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of **Streck** et al and Lindemeier et al by providing the correlator 27 of Cvetkovic so that the strongest signal or a correlated

video/audio would be provided for further processing from the result of comparison of the multiple input signals.

Considering claim **4**, the receiving device of claim 3, comprising an audio correlation device that receives said audio signals and provides a correlated audio output.

Regarding claim 4, see rejection of claim 3;

Considering claim **5**, the receiving device of claim 4, comprising a label correlation device that receives said video signals and provides a label correlated output signal;

Regarding claim 4, see rejection of claim 3;

Considering claim **6**, the receiving device of claim 5, wherein at one of said audio demodulation devices comprises a phase control circuit (28) and at least one filter (21) concurrent with said phase control circuit, for selection and mirror frequency suppression.

Regarding claim 6, the system as modified in claim 3 does not disclose a phase control circuit such as the PLL 28. However, the examiner takes Official Notice in the art the in that it is well known in the art to utilize a phase control circuit such as a PLL for controlling the phase of the signal, and therefore, it would have been obvious to the skilled in the art at the time the invention was made to provide a PLL for the audio

modulation device so that the phase of the output signal is the desired phase and not a signal that is out of phase in order to correctly display the video signal.

7. Claims **7,8,** and **12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Streck** et al. in view of Lindemeier et al., U.S. Pat. No. 5,313,660 and further in view Cvetkovic et al., U.S. Patent No. 6,141,536 and further in view of Siwiak et al., U.S. Patent No. 5,325,403.

Considering claim 7, the receiving device of claim 6, wherein said at least one audio demodulation device comprises a field strength detector that provides field strength signal.

Regarding claim 7, the combination as modified above does not specifically disclose **field strength detection**. However, signal strength detection is well known in the diversity reception systems. In that regard, Siwiak et al. discloses method and apparatus for dual-channel diversity reception of radio signal. Specifically, Siwiak et al. discloses a received signal strength indicator (134, 144) (see also figs. 1,3, and 7) that measures signal strength of the radio signal from the first antennal feed (106) during reception of a data bit, and concurrently measures signal strength from the second antenna feed (108). (see Abstract and fig.1)

Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of the combination as modified above, by

adding a detector in order to measure the strength of the signal of multiple received signals, in order to choose the best signal, and determine the fitness of the same that would be transmitted for further processing.

Considering claim **8**, the receiving device of claim. 7, wherein said at least one audio demodulation device comprises a quality detector that provides a quality signal.

Regarding claim 8, see rejection of claim 7.

Considering claim **12**, Streck et al. discloses the following claimed subject matter, note;

a) at least two television channel selection devices for converting high-frequency signals into intermediate frequency signals;

b) at least two video demodulation devices to convert said intermediate frequency signals into video signals;

c) at least two audio demodulation devices to convert said intermediate frequency signals into audio signals;

Except for;

d) a switching device that receives said intermediate frequency signals and routes each of said intermediate frequency signals to an associated one of said video demodulation devices and an associated one of said audio demodulation devices;

e) wherein each of said demodulation device includes an associated field strength detector and provides a field strength signal indicative thereof, ,

Regarding a), b),c) and d), see rejection of claim 1 a)-(d).

Regarding e), see rejection of claim 7.

Response to Arguments

8. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claims **9-11** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose a mobile receiver comprising an evaluation device that receives a correlated audio output signal, a correlated video output signal, a label correlated output signal, and audio signals and provides first switching control signals to a high-frequency switching devices and second switching control signals to a low-frequency switching device, as in claim 9;

wherein said evaluation device controls said high-frequency switching device and said low-frequency switching device in accordance with a selectable operating mode

selected by a mode command signal is met by controller's control signal to I/O switch and to the tuners, as in claim 10;

an evaluation device that receives said correlated audio output signal, said correlated video output signal, said label correlated output signal, said field strength signal, said quality signal, said audio signals and provides first switching control signals to said high-frequency switching devices and second switching control signals to said low-frequency switching device, as in claim 11;

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PAULOS M. NATNAEL
PATENT EXAMINER

PMN
February 17, 2004